What is claimed is:

1. An electrophotographic photoconductor, comprising:

an electroconductive substrate; and

a photoconductive layer on or above the electroconductive substrate, the photoconductive layer comprising:

a cross-linked surface layer which comprises:

a cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has an elastic displacement rate $\tau e$ of 35% or more and a standard deviation of the elastic displacement rate $\tau e$ of 2% or less.

2. An electrophotographic photoconductor according to Claim 1, wherein the cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure has a functional group selected from the group consisting of an acryloyloxy group and a methacryloyloxy group.

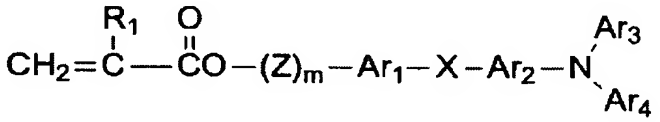
3. An electrophotographic photoconductor according to Claim 1, wherein the cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure has a ratio (molecular weight/number of functional

group) of molecular weight to the number of functional group of 250 or less.

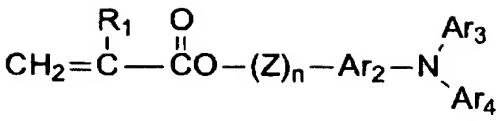
4. An electrophotographic photoconductor according to Claim 1, wherein the cured mono-functional radical polymerizable compound having a charge transporting structure has a functional group selected from the group consisting of an acryloyloxy group and a methacryloyloxy group.

5. An electrophotographic photoconductor according to Claim 1, wherein the charge transporting structure of the cured mono-functional radical polymerizable compound having a charge transporting structure is a triarylamine structure.

6. An electrophotographic photoconductor according to Claim 1, wherein the cured mono-functional radical polymerizable compound having a charge transporting structure is represented by one of the formulae (1) and (2):



(1)



(2)

wherein, $R_1$ represents a hydrogen atom, a halogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted, an aryl group which may be substituted, a cyano group, a nitro group, an alkoxy group, -$COOR_7$ ($R_7$ represents a hydrogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted or an aryl group which may be substituted), a halogenated carbonyl group or $CONR_8R_9$ ($R_8$ and $R_9$ represent a hydrogen atom, a halogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted or an aryl group which may be substituted, which may be identical or different);

$Ar_1$ and $Ar_2$ represent a substituted or unsubstituted arylene group, which may be identical or different;

$Ar_3$ and $Ar_4$ represent a substituted or unsubstituted aryl group, which may be identical or different;

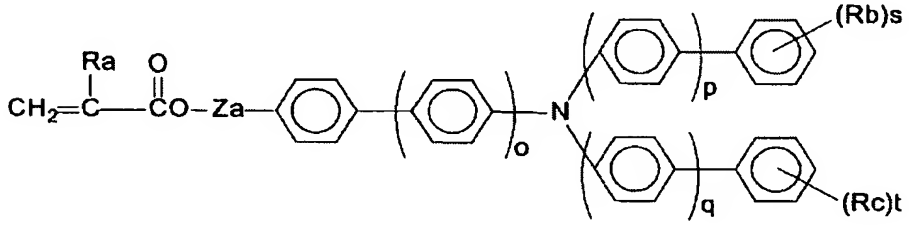
X represents a single bond, a substituted or unsubstituted alkylene group, a substituted or unsubstituted cycloalkylene group, a substituted or unsubstituted alkylene ether group, a oxygen atom, a sulfur atom or a vinylene group;

Z represents a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkylene ether group or an

alkyleneoxycarbonyl group; and

"m" and "n" represent an integer of 0 to 3.

7. An electrophotographic photoconductor according to Claim 1, wherein the cured mono-functional radical polymerizable compound having a charge transporting structure is represented by the following formula (3):




(3)

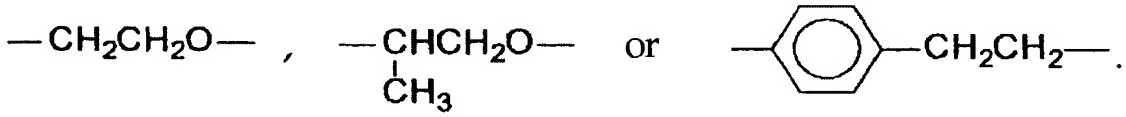
wherein, "o," "p" and "q" each represent an integer of 0 or 1;

Ra represents a hydrogen atom or a methyl group;

Rb and Rc represent an alkyl group having 1 to 6 carbon atoms, wherein each of Rb and Rc may be different when there are two or more Rb and Rc, respectively;

"s" and "t" represent an integer of 0 to 3; and

Za represents a single bond, a methylene group, an ethylene group,



8. An electrophotographic photoconductor according to Claim 1, wherein the cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure is 30% to 70% by weight, based on the total amount of the cross-linked surface layer.

9. An electrophotographic photoconductor according to Claim 1, wherein the cured mono-functional radical polymerizable compound having a charge transporting structure is 30% to 70% by weight, based on the total amount of the cross-linked surface layer.

10. An electrophotographic photoconductor according to Claim 1, wherein the photoconductive layer comprises:

a charge generation layer;

a charge transport layer; and

the cross-linked surface layer laminated on or above the electroconductive substrate in this order.

11. An electrophotographic photoconductor according to Claim 10, wherein the charge transport layer comprises a polymer charge transport material.

12. An electrophotographic photoconductor according to

Claim 11, wherein the polymer charge transport material is a polycarbonate having a triarylamine structure in the main chain or side chain thereof.

13. An electrophotographic photoconductor according to Claim 1, wherein the cross-linked surface layer is cured by one of heating and light irradiation.

14. An electrophotographic photoconductor according to Claim 10, wherein the cross-linked surface layer has a thickness of from 1 μm to 10 μm.

15. An electrophotographic photoconductor according to Claim 10, wherein the thickness is from 2 μm to 8 μm.

16. An electrophotographic photoconductor according to Claim 10, wherein the cross-linked surface layer is insoluble in an organic solvent.

17. An electrophotographic photoconductor, comprising:

an electroconductive substrate;

a charge generation layer;

a charge transport layer; and

a cross-linked surface layer, the layers sequentially laminated on the electroconductive substrate,

wherein the cross-linked surface layer comprises:

a cross-linked and cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cross-linked and cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has thickness of from 1 μm to 10 μm.

18. An electrophotographic photoconductor according to Claim 17, wherein the thickness is from 2 μm to 8 μm.

19. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked surface layer is insoluble in an organic solvent.

20. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked and cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure has a functional group selected from the group consisting of an acryloyloxy group and a methacryloyloxy group.

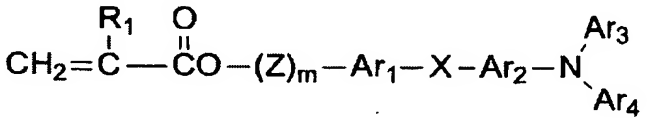
21. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked and cured tri- or more-functional

radical polymerizable monomer without having a charge transporting structure has a ratio (molecular weight/number of functional group) of molecular weight to the number of functional group of 250 or less.

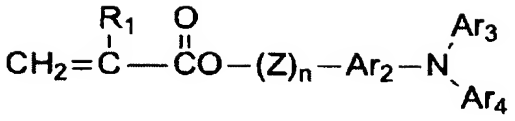
22. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked and cured mono-functional radical polymerizable compound having a charge transporting structure has a functional group selected from the group consisting of an acryloyloxy group and a methacryloyloxy group.

23. An electrophotographic photoconductor according to Claim 17, wherein the charge transporting structure of the cross-linked and cured mono-functional radical polymerizable compound having a charge transporting structure is a triarylamine structure.

24. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked and cured mono-functional radical polymerizable compound having a charge transporting structure is represented by one of the formulae (1) and (2):



(1)



(2)

wherein, $R_1$ represents a hydrogen atom, a halogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted, an aryl group which may be substituted, a cyano group, a nitro group, an alkoxy group, -$COOR_7$ ($R_7$ represents a hydrogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted or an aryl group which may be substituted), a halogenated carbonyl group or $CONR_8R_9$ ($R_8$ and $R_9$ represent a hydrogen atom, a halogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted or an aryl group which may be substituted, which may be identical or different);

$Ar_1$ and $Ar_2$ represent a substituted or unsubstituted arylene group, which may be identical or different;

$Ar_3$ and $Ar_4$ represent a substituted or unsubstituted aryl group, which may be identical or different;

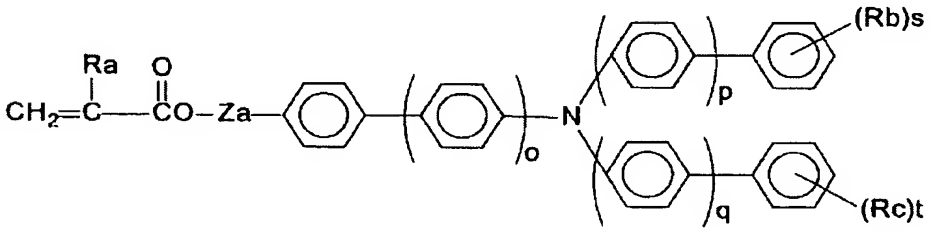
X represents a single bond, a substituted or unsubstituted alkylene group, a substituted or unsubstituted cycloalkylene group, a substituted or unsubstituted alkylene ether group, a oxygen atom, a sulfur atom or a vinylene group;

Z represents a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkylene ether group or an

alkyleneoxycarbonyl group; and

"m" and "n" represent an integer of 0 to 3.

25. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked and cured mono-functional radical polymerizable compound having a charge transporting structure is represented by the following formula (3):




(3)

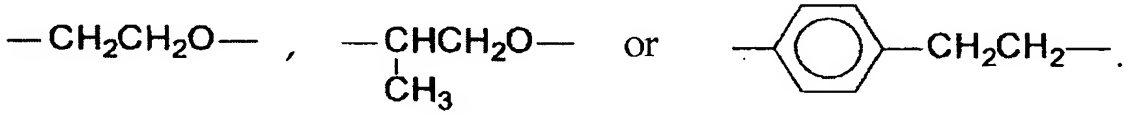
wherein, "o," "p" and "q" each represent an integer of 0 or 1;

Ra represents a hydrogen atom, a methyl group;

Rb and Rc represent an alkyl group having 1 to 6 carbon atoms, wherein each of Rb and Rc may be different when there are two or more Rb and Rc, respectively;

"s" and "t" represent an integer of 0 to 3; and

Za represents a single bond, a methylene group, an ethylene group,



26. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked and cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure is 30% to 70% by weight, based on the total amount of the cross-linked surface layer.

27. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked and cured mono-functional radical polymerizable compound having a charge transporting structure is 30% to 70% by weight, based on the total amount of the cross-linked surface layer.

28. An electrophotographic photoconductor according to Claim 17, wherein the charge transport layer comprises a polymer charge transport material.

29. An electrophotographic photoconductor according to Claim 28, wherein the polymer charge transport material is a polycarbonate having a triarylamine structure in the main chain or side chain thereof.

30. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked surface layer is cured by one of heating and light irradiation.

31. An electrophotographic photoconductor according to Claim 17, wherein the cross-linked surface layer has an elastic displacement rate τe of 35% or more and a standard deviation of the elastic displacement rate τe of 2% or less.

32. A process for forming an image, comprising:

charging an electrophotographic photoconductor;

exposing the electrophotographic photoconductor which is charged to a recording light so as to form an electrostatic latent image;

developing the electrostatic latent image by a developing agent so as to visualize the electrostatic latent image and form a toner image; and

transferring the toner image formed by developing onto a transfer material,

wherein the electrophotographic photoconductor comprises:

an electroconductive substrate; and

a photoconductive layer on or above the electroconductive substrate, the photoconductive layer comprising:

a cross-linked surface layer which comprises:

a cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has an elastic displacement rate τe of 35% or more and a standard deviation of the elastic displacement rate τe of 2% or less.

33. A process for forming an image, comprising:

charging an electrophotographic photoconductor;

exposing the electrophotographic photoconductor which is charged to a recording light so as to form an electrostatic latent image;

developing the electrostatic latent image by a developing agent so as to visualize the electrostatic latent image and form a toner image; and

transferring the toner image formed by developing onto a transfer material,

wherein the electrophotographic photoconductor comprises:

an electroconductive substrate;

a charge generation layer;

a charge transport layer; and

a cross-linked surface layer, the layers sequentially laminated on the electroconductive substrate,

wherein the cross-linked surface layer comprises:

a cross-linked and cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cross-linked and cured mono-functional radical

polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has thickness of from 1 μm to 10 μm.

34. An apparatus for forming an image, comprising:

an electrophotographic photoconductor;

a charger to charge the electrophotographic photoconductor;

an exposer to expose the electrophotographic photoconductor charged by the charger to a recording light to form an electrostatic latent image;

a developing unit to supply a developing agent to the electrostatic latent image to visualize the electrostatic latent image and form a toner image; and

a transferring unit to transfer the toner image formed by the developing unit on a transfer material,

wherein the electrophotographic photoconductor comprises:

an electroconductive substrate; and

a photoconductive layer on or above the electroconductive substrate, the photoconductive layer comprising:

a cross-linked surface layer which comprises:

a cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has an elastic

displacement rate τe of 35% or more and a standard deviation of the elastic displacement rate τe of 2% or less.

35. An apparatus for forming an image, comprising:

an electrophotographic photoconductor;

a charger to charge the electrophotographic photoconductor;

an exposer to expose the electrophotographic photoconductor charged by the charger to a recording light to form an electrostatic latent image;

a developing unit to supply a developing agent to the electrostatic latent image to visualize the electrostatic latent image and form a toner image; and

a transferring unit to transfer the toner image formed by the developing unit on a transfer material,

wherein the electrophotographic photoconductor comprises:

an electroconductive substrate;

a charge generation layer;

a charge transport layer; and

a cross-linked surface layer, the layers sequentially laminated on the electroconductive substrate,

wherein the cross-linked surface layer comprises:

a cross-linked and cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cross-linked and cured mono-functional radical

polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has thickness of from 1 μm to 10 μm.

36. A process cartridge for an image forming apparatus, comprising:

an electrophotographic photoconductor; and

at least one selected from the group consisting of:

a charger to charge the electrophotographic photoconductor;

a developing unit to supply a developing agent to an electrostatic latent image formed by exposure on the electrophotographic photoconductor to visualize the electrostatic latent image and form a toner image;

a transferring unit to transfer the toner image formed by the developing unit on a transfer material;

a cleaning unit to remove toner remaining on the electrophotographic photoconductor after transferring; and

a discharging unit to remove the latent image on the photoconductor after transferring so as to form a monolithic structure,

wherein the process cartridge is adapted to be attached to and detached from a main body of the image forming apparatus, and

the electrophotographic photoconductor comprises:

an electroconductive substrate; and

a photoconductive layer on or above the electroconductive substrate, the photoconductive layer comprising:

a cross-linked surface layer which comprises:

a cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has an elastic displacement rate $\tau e$ of 35% or more and a standard deviation of the elastic displacement rate $\tau e$ of 2% or less.

37. A process cartridge for an image forming apparatus, comprising:

an electrophotographic photoconductor; and

at least one selected from the group consisting of:

a charger to charge the electrophotographic photoconductor;

a developing unit to supply a developing agent to an electrostatic latent image formed by exposure on the electrophotographic photoconductor to visualize the electrostatic latent image and form a toner image;

a transferring unit to transfer the toner image formed by the developing unit on a transfer material;

a cleaning unit to remove toner remaining on the

electrophotographic photoconductor after transferring; and

a discharging unit to remove the latent image on the photoconductor after transferring so as to form a monolithic structure,

wherein the process cartridge is adapted to be attached to and detached from a main body of the image forming apparatus, and

the electrophotographic photoconductor comprises:

an electroconductive substrate;

a charge generation layer;

a charge transport layer; and

a cross-linked surface layer, the layers sequentially laminated on the electroconductive substrate,

wherein the cross-linked surface layer comprises:

a cross-linked and cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cross-linked and cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has thickness of from 1 μm to 10 μm.